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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,715	09/06/2006	Masatomo Mizuta	Q96949	3144
23373 7590 05/27/2010 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER				
HAN, KWANG S				
ART UNIT		PAPER NUMBER		
1795				
NOTIFICATION DATE		DELIVERY MODE		
05/27/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com  
PPROCESSING@SUGHRUE.COM  
USPTO@SUGHRUE.COM

### Office Action Summary

**Application No.**

10/591,715

**Applicant(s)**

MIZUTA, MASATOMO

**Examiner**

Kwang Han

**Art Unit**

1795

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-6 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**FILM COVERED ELECTRIC DEVICE AND COLLECTOR COVERING MEMBER FOR  
THE FILM COVERED ELECTRIC DEVICE**

Examiner: K. Han    SN: 10/591,715    Art Unit: 1795    May 25, 2010

**Detailed Action**

1. The Applicant's amendment filed on February 12, 2010 was received. Claims 2 and 7 were cancelled. Claims 1, 4-6, and 8 were amended.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 103***

3. The claim rejection under 35 U.S.C. 103(a) as unpatentable over Kaneda et al. in view of Baumann on claims 2 and 7 is withdrawn, because claims 2 and 7 have been cancelled.
4. Claims 1, 3, 4, 6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneda et al. (WO00/59063 using US 6743546 for translation and citation) in view of Baumann (US 5270133).

Regarding claims 1 and 6, Kaneda is directed towards a laminate sheath type battery with an electrode plate module (3) including sheet like plates of positive and negative electrodes laminated upon one another having a laminate casing (1) which is comprised of a metal layer and a heat seal resin layer (12:14-56, 1:50-62). Terminals (collectors 10a; Figures 1, 4, 12) are formed from collectively joining the anode and

cathode plates and the casing sealed (13:27-44) and a lead (tab, 14) connected to the terminal that extends from the laminate casing (Figure 12). Kaneda further teaches an insulating spacer (59; Figure 12) surrounding the terminals which is used to hold the electrode assembly in position and restrict from moving due to vibration or impact (17:6-31) but is silent towards the spacer tightly covering at least a corner of the collector.

Baumann teaches a encapsulating method for a battery comprised of the battery elements being placed in a bag which tightly seals the edges of the collector and the collector tabs and then is encapsulated with a resin seal (member in the form of a bag) (3:60-4:11; Figures 1 and 2) with an opening on one end of the bag to allow for the collector tabs to be extended from the upper portions of the plates (Figure 2) for the benefit of producing an enclosed system with a substantial weight reduction [Abstract]. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a bag and encapsulation method with resin to cover the collector of Kaneda because Baumann teaches this allows for producing an enclosed battery system with a substantial weight reduction.

Regarding claims 3 and 8, Kaneda discloses the insulating spacer surrounding the terminal region to be made of a resin (17:6-13).

Baumann teaches the encapsulating material to be a resin material because it provides a thin coating (for weight reduction) which yields desired encapsulation and suitable physical properties for battery applications (4:20-44). It would have been obvious to one of ordinary skill in the art at the time of the invention use a resin based

material for the bag film because Baumann teaches it provides a thin coating which yields desired encapsulation and suitable physical properties for battery applications.

Regarding claims 4 and 9, the teachings of Kaneda as discussed above are herein incorporated.

Baumann teaches a encapsulating method for a battery comprised of the battery elements being placed in a bag (first film) which tightly seals the edges of the collector and the collector tabs and then is encapsulated with a resin seal (second film) (3:60-4:11; Figures 1 and 2) for the benefit of producing an enclosed system with a substantial weight reduction [Abstract]. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a bag (first film) and encapsulation method with resin (second film) to cover the collector of Kaneda because Baumann teaches this allows for producing an enclosed battery system with a substantial weight reduction.

5. Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneda et al. in view of Baumann as applied to claims 1 and 6 above, and further in view of Kamata et al. (US 4732825).

Regarding claims 5 and 10, the teachings of Kaneda and Baumann as discussed above are herein incorporated. Kaneda and Baumann are silent as to the member being made of an inflation film.

Kamata teaches a flat cell with a pair of sealing films which are produced by the inflation method so that the film is isotropic in terms of thermal shrinkage and thermal

expansion when it is heated and cooled (5:56-6:9). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the member be an inflation film because Kamata teaches this provides the film with isotropic properties so that the film shrinks and expands due to heat evenly.

### ***Response to Arguments***

6. Applicant's arguments filed February 12, 2010 have been fully considered but they are not persuasive.

*Applicant's principal arguments are:*

*(a) the Kaneda reference does not disclose a member in the form of a bag covering the collector and Baumann does not disclose a collector.*

In response to Applicant's arguments, please consider the following comments:

(a) as discussed in the rejection above Kaneda discloses a laminate sheath type battery with terminals formed from collectively joining the anode and cathode plates that is modified by the teachings of Baumann with an encapsulating method to produce an enclosed battery with a substantial weight reduction. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact/Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwang Han whose telephone number is (571) 270-5264. The examiner can normally be reached on Monday through Friday 8:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on (571) 272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. H./  
Examiner, Art Unit 1795

/Dah-Wei D. Yuan/  
Supervisory Patent Examiner, Art Unit 1795